



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,829	05/02/2007	Bill Seabrook	RID10038P00040US	4960
7590 12/07/2009				
Allen J. Hoover				
Wood, Phillips, Katz, Clark & Mortimer				
500 West Madison Street				
Suite 3800				
Chicago, IL 60661				
EXAMINER				
SHALLENBERGER, JULIE A				
ART UNIT		PAPER NUMBER		
2885				
MAIL DATE		DELIVERY MODE		
12/07/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/582,829

**Applicant(s)**

SEABROOK, BILL

**Examiner**

JULIE A. SHALLENBERGER

**Art Unit**

2885

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-4, 6-20, 24-26, 29-31 and 34-38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-31 and 34-38 is/are allowed.
- 6) ☒ Claim(s) 2-4, 6, 7 and 11 is/are rejected.
- 7) ☒ Claim(s) 8-10 and 12-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

Upon further consideration, the indicated allowability (from previous non-final office action mailed 12/17/08) of claim 5 (now incorporated into claim 2 to make in independent form) is withdrawn in view of the newly discovered reference(s) to Ono (2003/0214803).

Therefore, rejections based on the newly cited reference(s) follow.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2, 3, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Ono (2003/0214803).

In regard to claim 2, Ono teaches a lighting assembly, comprising: a thermally conductive mounting having a mounting surface 402 and a heat sink seat 403, 404 having a front surface and a rear surface, said heat sink seat being moveably mounted to said mounting surface, wherein the shape of said mounting surface corresponds to the shape of the rear surface of said heat sink seat. wherein the front of said heat sink seat receives a light emitting device 401, [0114] wherein the rear surface of said heat sink seat forms a convex surface

Art Unit: 2885

and said mounting surface forms a concave surface, and wherein the radius of said convex surface corresponds to the radius of said concave surface (see figures 6A,B) [0107-0115].

In regard to claim 3, Ono teaches the light emitting device is a light emitting diode (LED) thermally coupled to the front surface of said heat sink seat [0111-0114].

In regard to claim 7, Ono teaches wherein said heat sink seat includes a front portion (403,404) forming a wedge for angling said light emitting device [0108-0111].

It is noted that the examiner interprets the language *"forming a wedge"* according to the definition of wedge: *"to pack or fix tightly"* (see [www.dictionary.com](http://www.dictionary.com)).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono.

In regard to claim 6, Ono teaches the invention described above and mentions the invention is constructed of a metal material having high heat

Art Unit: 2885

dissipation, but does not explicitly teach the mounting and said heat sink seat are formed of aluminum in this embodiment.

However, Ono teaches the use of aluminum [0121] because of its favorable heat dissipation properties.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the mounting and heat sink of Ono's embodiment in fig. 6A,B out of aluminum in order to provide make the device out of a metal which is readily available, easily formed and has good heat dissipation. One would have been motivated to use aluminum for its malleability as well as its superior heat dissipation.

In regard to claim 11, Ono teaches the invention described above including a heat dissipating LED mounting/heat sink (via thermal coupling) and the use of a plurality of LEDs [0107-0114], but does not explicitly teach/show a plurality of collimators including a lens attached to the front surface of said heat sink seat, wherein each said lens is operably positioned over one LED in the plurality of LEDs for focusing the light emitted therefrom.

However, Ono teaches a lens 696 [0172] which appears to depict the same structure as 401 in fig. 6A.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a plurality of LEDs and lenses in Ono's embodiment taught in Figure 6A for the purpose of providing more light and to increase the focusing effect for directing the light on a target area. One would have been motivated to use a plurality of LEDs and lenses in order to increase the

Art Unit: 2885

brightness or to ensure that some light is emitted in the event that an LED stops working.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ono in view of Licht (2005/0020754).

Ono teaches the invention described above including an LED [0114] and the use of aluminum for heat dissipation [0121], but lacks the teaching of an aluminum slug on a rear surface of said LED.

'Licht teaches an aluminum slug 1700 on a rear surface of said LED 1600 [0021].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an aluminum slug on the back surface of Ono's LED(s) in order to maximize the amount of heat being dissipated from the LED. One would have been motivated to use a slug as taught by Licht in Ono's device in order to maximize protection from heat and thus prolong the life of the LED(s).

***Allowable Subject Matter***

Claims 29-31, and 34-38 are allowed.

Claims 8-10, 12-20, and 24-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2885

In regard to claim 8, Ono teaches the invention described above, but lacks the teaching of the mounting defining an indexing channel for mounting said heat sink seat, and wherein said heat sink seat further includes an indexer at the rear surface thereof, said indexer being received in said indexing channel.

In regard to claims 24 and 29, the previously indicated allowable subject matter of claims 28 and 33 have been incorporated into claims 24 and 29 respectively. The prior art fails to show or teach in combination a light device with heat recovery as recited which comprises fins that are radially extending.

### ***Response to Arguments***

Applicant's arguments with respect to claim 2 have been considered but are moot in view of the new ground(s) of rejection.

While the applicant does argue the Ono reference with regard to claim 2, the rejection is based on a different embodiment taught by Ono (see figure 6A and 6B). Therefore the arguments are moot.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jamison 6,481,871 teaches a related invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIE A. SHALLENBERGER whose

Art Unit: 2885

telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS  
AU 2885

/Jong-Suk (James) Lee/  
Supervisory Patent Examiner, Art Unit 2885